

A0PI SPECTROMETER POWER-ON ACCESS HAZARD ANALYSIS

POWER-ON ACCESS PURPOSE: Spectrometer Magnet Test & Calibration.

ACCESS DATE/TIME: _____

ENCLOSURES BEING ACCESSED: A0 Photoinjector South Cave (A0PI Cave)

SUBJECT DEVICE: A0PI Spectrometer Magnet Power Supply

APPROVAL REQUIRED PER BDSP-05-0400: SSO or Designee

ACCESS COORDINATOR: _____ ID# _____
is responsible for ensuring adherence to the requirements of the hazard analysis.

UNEXPOSED OBSERVER: _____ ID# _____
will maintain possession of the A0PI Cave Key and remain outside the cave - unless she needs to enter the cave to warn entrants to exit. If they need to enter the cave for this purpose, they should shut down the SM PS, if possible, before entering.

APPROVED ENTRANTS and THEIR TASKS:

- _____ ID# _____ TASK _____
- _____ ID# _____ TASK _____
- _____ ID# _____ TASK _____

OTHER PERSONNEL SUPPORTING ACCESS: 1 Interlock Technician
1 RSO (or designee)
1 SSO (or designee)

ACCESS REQUIREMENTS:

NOTE: No one with a cardiac pacemaker shall be allowed in the cave while the Spectrometer Magnet is on, since even low level magnet fields (~5G) can affect pacemaker function.

NOTE: This procedure is only valid when voltage < 50 Vdc and amperage < 20 A. If either parameter is higher, the procedure must be stopped, the SM power locked off, and ES&H Dept. consulted.

NOTE: The following magnetic field strength exposure limits will be adhered to:

Whole Body Exposure < 600 G (60 mT)

Extremity Exposure < 6000 G (600 mT)

If exposures above this are encountered, stop testing and contact the SSO before proceeding.

- Prior to jumpering the SM PS, the A0PI Cave interlocked devices (other than the subject device) must be locked off with the A0PI Configuration Control padlocks. The Configuration Control Key must be placed into a Job Lock Box. Job Lock Box will be placed at entrance to A0PI Cave. **All entrants must perform LOTO on said Job Lock Box prior to beginning the power-on access to the A0PI Cave.**

- In order to completely prevent the production of radiation in the A0PI Cave, prior to jumpering the SM PS and beginning the power-on access to the A0PI Cave the RSO must perform Configuration Control on both RF Modulator High Voltage Power Supplies. The two supplies are called 3MWRF Charging PS 1 & 2 (fed by DHP A0 HIGH BAY #2, CKT 13, 15, 17) and 200KWRF HVPS (fed by DHP A0 HIGH BAY #2, CKT 8, 10, 12).
- **Only the approved entrants will be allowed entrance to A0PI Cave during the power-on period. One unexposed observer will remain outside of A0PI Cave, keep track of entrants, and maintain possession of A0PI Cave Entrance key.** The cave will not be "secured" (i.e., the interlock system will not be made up) during the access, but the door to the cave will be closed and locked.
- **The Access Coordinator and the SSO will inspect the SM and associated cabling prior to beginning the power-on access to the A0PI Cave to ensure that all conductors that will be energized during the access are adequately covered. All entrants will ensure that the loads terminals and exposed bus are covered to prevent accidental shorting or grounding. No energized conductors will be exposed during the access.**
- Power supplies will be run at the lowest current which is sufficient for the polarity and field testing.
- Once the access activities have been completed, the entrants will leave the cave and the Access Coordinator will obtain the Door/Reset key, Search & Secure the cave, exit the cave (closing the door behind him), turn off the SM power supply, make up the cave interlocks, and then break interlocks (open the cave door) thus removing all jumpered interlocks. Regular access is not permitted to the cave until the SM PS has been relocked with the A0PI Configuration Control padlock.
- The Access Coordinator will contact the RSO for removal of the RSO padlocks.

APPROVAL SIGNATURE:

SIGNATURE INTERLOCK
TECHNICIAN:

SIGNATURE OF
UNEXPOSED OBSERVER:

SIGNATURE OF ENTRANTS:
